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ABSTRACT

This paper analyzed the policy implications of disparate compensation and working conditions associated with teaching in three publicly funded early childhood systems in New York City. Survey data from 559 teachers (336 in public school, 134 in day care, and 89 in Head Start) included information on levels of training, credentials held, course work in early childhood education, workforce stability, and future career plans. Unacceptable rates of teacher turnover and vacancies in the nonpublic school programs were predicted by differences in compensation and working conditions. Results are discussed in the context of what is known about the quality of early childhood programs and the increasing involvement of public schools in programs for young children. Also included are 39 references, 1 note, and 6 tables. (Author/SKC)

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The Policy Implications of Compensation and Working Conditions in Three Publicly Funded Early Childhood Education Systems

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Running Head: THE POLICY IMPLICATIONS OF COMPENSATION

Abstract

This paper analyzes the policy implications of disparate compensation and working conditions associated with teaching in three publicly funded early childhood systems. Survey data from 559 teachers (336 public school, 134 day care and 89 Head Start) included information on levels of training, credentials held, course work in early childhood education, workforce stability, and future career plans. Unacceptable rates of teacher turnover and vacancies in the non-public school programs were predicted by differences in compensation and working conditions. The results are discussed in a context of what is known about the quality of early childhood programs and the increasing involvement of public schools in programs for young children.

Introduction

Studies of the long-term effects of early education demonstrate that good early childhood programs are good public policy. Investments in high-quality programs for young children from low-income families are cost effective--because these programs reduce the number of children who are retained in grade, who require special education, or who come into contact with the justice system (Barnett, 1988; Berrueta-Clement, Schweinhart, Epstein, & Weikart, 1984; Lazar & Darlington, 1982). These studies are compelling, but there is no guarantee that programs of lesser quality will produce the same results.

In early childhood programs, program quality has typically been defined through professional judgement (e.g., Harms & Clifford, 1980; National Academy of Early Childhood Programs, 1984). These definitions of quality have been informed by a growing body of empirical literature (Phillips & Howes, 1987; Willer, 1987). Three particularly strong correlates of program quality have emerged from this line of inquiry:

1. Teacher training specifically related to child development/early childhood education. Coursework and other teacher training related to child development and early education are positively associated with such desirable outcomes as child achievement or "readiness" (Berk, 1985; Clarke-Stewart & Gruber, 1984; Feeney & Chun, 1985; Howes, 1983; Ruopp, Travers, Glantz, & Coelen, 1979).

2. Group size and staff:child ratios. There are optimum ranges for group size and staff:child ratios, which vary according to the age of children served. For example, the upper limit of the optimal group size for four-year-olds is probably 16 to 20 children, with ratios not to exceed 1:10 (Clarke-Stewart & Gruber, 1984; Cummings & Beagles-Ross, 1983; Field, 1980; Francis & Self, 1982; Howes, 1983; Howes & Rubenstein, 1985; Ruopp, et al., 1979).

3. Continuity/Stability of teachers. Lower rates of staff turnover (either from leaving a program or from being rotated within a program among different groups of children) are positively associated with positive child outcomes, particularly for younger children (Clarke-Stewart & Gruber, 1984; Cummings, 1980; Rubenstein & Howes, 1979).

Because these studies are correlational, their implications are tentative but clear. Early childhood programs should attract persons with relevant training or provide such training to them. These individuals must then be encouraged to stay on the job without excessive rotation among groups of children. All this must occur in a labor-intensive environment, dictated by necessary limits on group size and staff:child ratios.

Since both professional judgement and empirical work affirm the policy importance of a trained and stable workforce in early childhood programs, literature on the characteristics and behaviors of that workforce, and the variables that shape it, has gained importance.

The current work was done to examine the policy implications of disparate rewards associated with teaching in New York City's three publicly

funded early childhood systems: Day Care, Head Start and public-school based programs. New York City's publicly funded programs are a particularly good environment for examining how rewards shape an early childhood workforce for two reasons: (1) there are system-wide contracts for the public schools, publicly funded Day Care, and Head Start, which makes it relatively easy to understand how the rewards vary across these publicly funded programs; and (2) teacher certification requirements are similar across these programs, making it possible to isolate the impact of differences in rewards. Since certification requirements do not keep a certified teacher from moving from one system to another, we could assume that movement was due to differential rewards.

Background

It is not possible to routinely determine the characteristics of the early childhood workforce. Databases on public school teachers, such as those maintained by the National Education Association and the National Center for Educational Statistics, do not delineate early childhood teachers as a subset (c.f. Feistritzer, 1985; Sedlack & Schlossman, 1986). Two other national sources, the Census Bureau and the Bureau of Labor Statistics, add little coherent information on early childhood teachers outside the public schools (Phillips & Whitebook, 1986).

The limitations of these national databases are partially offset by the supply study portion of the National Day Care Study (Coelen, Glantz, & Calore, 1979) and a growing body of more recent work on characteristics of the early childhood workforce (BANANAS Resource and Referral/Child

Care Employee Project, 1986; Kontos & Stremmel, 1988; Leavitt, 1986; Modigliani et al., 1986; Pence & Goelmen, 1987; Nelson, 1986; Zinsser, 1986; Zuccalo & Sterling, 1986).

The consistent pattern of a reasonably well-educated but highly unstable workforce of teachers emerges from these studies. Teachers average about 14 years of education, often with some job-relevant coursework in early education, child development, and/or special education. But the workforce is highly unstable, with teacher turnover rates averaging approximately 40% per year across studies.

The high turnover is often attributed to the low compensation and relatively poor working conditions that are common in early childhood programs outside the public schools. For example, Grubb's (1987) calculation of teacher salaries in various demonstration programs and several studies of salaries, wages, benefits, and working conditions (hereafter referred to as salary and wage studies) estimate annual teacher salaries outside the public schools to be in the $9,000-$14,000 range for 1984-1985 (BANANAS Resource and Referral/Child Care Employee Project, 1986; Leavitt, 1986; Modigliani et al., 1986; Nelson, 1986; Zinsser, 1986; Zuccalo & Sterling, 1986). Poor fringe benefits compound the impact of low wages. Aggregating information across salary and wage studies, only one fourth of the teachers in non-public school positions receive employer-paid health coverage, and employer-subsidized retirement benefits are extremely rare. Researchers have also documented poor working conditions in these programs, such as the absence of paid time for lunch or program planning

(Modigliani et al., 1986) and little relief from routine or custodial functions, even with increased experience, responsibility, or education (Kontos & Stremmel, 1988).

While consistent, the generalizability of these patterns to other situations nationwide is not known. The most comprehensive effort, the National Day Care Study (NDCS), is now over ten years old. Also, the NDCS did not differentiate between teachers and teacher aides in most of its analyses, staff from part-day programs were not sampled, and public-school based programs were not included for analysis. The salary and wage studies cited above used much smaller regional or local samples and continued the trend of not including early childhood programs in the public schools.

This lack of attention to public schools has several important policy implications, derived mostly from the relatively better compensation and working conditions found in public school versus non-public school programs. For example, Feistritzer (1985) reported an average salary of $23,092 for a ten-month work year for public school elementary teachers in the United States for 1984-1985 (the same year when salaries in the non-public school sector were $9,000-$14,000). In addition, substantial benefits and improved working conditions, such as individual health coverage paid by the employer, reasonable amounts of sick and holiday paid leave, and paid planning time are common in the public schools.

Because the quality of an early childhood program is affected by the stability of its workforce, this disparity in compensation and working conditions between public school and non-public school programs is

important. Adopting a commonly used conceptual framework for studies of employee supply and demand, persons are assumed to choose an occupation and a specific job within that occupation by comparing the rewards associated with alternative possibilities (Bird, 1985; Lortie, 1975; Sykes, 1983; Zarkin, 1985). In the current context, people choose to teach because they decide that teaching is more rewarding than other occupational choices, and seek out relatively more rewarding positions within teaching.

Given this model and disparities in the rewards favoring the public schools, one would expect both prospective teachers and veteran non-public school teachers to be drawn toward the schools. If this adds to either turnover or labor shortage problems in non-public school programs, particularly publicly funded programs designed to serve poor children, then the public's interest in high-quality early childhood programs will not be served. Such a scenario is of special concern since the schools are expanding their involvement in the early childhood world. Mitchell (1988) has confirmed this trend, documenting that public school affiliated early childhood programs are increasing in number.

Method

Sample Selection

Using lists provided by various public agencies, unions and a not-for-profit resource and referral organization, we drew a random sample of teachers from the three publicly funded systems of early childhood programs in New York City: the Board of Education (BOE); Agency For Child Development (ACD) Day Care; and ACD Head Start. We controlled for the

age level of children being taught by sampling prekindergarten and kindergarten teachers in the BOE and teachers of three- to five-year-old children in the other two systems. This was the age range of children shared by all three systems and we chose it to maximize comparability.

Procedures and Instruments

Each selected teacher was sent a packet which contained: (a) a letter that described the study and assured confidentiality; (b) a survey instrument; and (c) a self-addressed, stamped, return envelope. The nine-page, fixed-response survey took approximately nine minutes to complete. The survey contained questions in four areas: (a) program information, to enable us to identify the respondent's current teaching assignment; (b) individual background, designed to profile the respondent's education, teaching experience, and personal characteristics (e.g., race, age); (c) professional satisfaction, to assess reasons for entering the field, level of satisfaction with that occupational choice, and likelihood of staying in the field; and (d) recommendations to improve the teaching profession, to elicit opinions of frequently discussed reforms. Results related to teacher job satisfaction and recommendations to improve the teaching profession are tangential to our present purpose and will be reported elsewhere.

We used two versions of this instrument. Each was parallel in content, with specific language and items reflecting differences between the BOE and ACD systems. For example, a question about program funding sources had response options specific to each system. Approximately two weeks after the initial mailing, we sent a follow-up letter to all persons

sampled. Since the survey was anonymous, the second letter thanked those who had responded and encouraged those who had not to do so.

When surveys were returned, one of two research assistants reviewed each survey to ensure legibility and resolve inconsistencies. In addition, the research assistants estimated each teacher's current annual salary from the three salary scales in effect during 1986-87. Following review by the two research assistants, all surveys were reviewed by a senior research assistant to ensure consistency of judgement between the junior assistants and as a final check on accuracy of coding.

Response Rates

Board of Education and unionized ACD Day Care teachers were sent surveys at their school or center address. All ACD Head Start teachers and the small number of nonunionized ACD Day Care teachers were sent surveys via the Center Director or Sponsoring Board Chair, due to a lack of teacher addresses for these groups. When calculating response rates, we made two very conservative assumptions. First, we assumed that all the packets sent to employers were actually given to the teachers we had identified. We also assumed that no persons had left their positions during the two months between the generation of our list of names and the distribution of materials. Anticipating that these assumptions would depress our calculated response rates from ACD Day Care and ACD Head Start respondents, we sampled them at higher than the 20% rate used for the BOE.

There was a total of 559 respondents, 336 from the BOE, 134 from Day Care and 89 from Head Start. This constitutes approximately 10% of

the universe of BOE prekindergarten and kindergarten teachers, 10% of the teachers of preschool-aged children in Day Care and 25% of the Head Start teachers. Response rates employing our conservative assumption were 47.2% for the BOE, 29.6% for Day Care and 29% for Head Start. Managers involved with the three systems confirmed that the samples appear to be representative of the demographics of these workforces.

Results and Discussion

Table 1 compares an illustrative set of the rewards for the three publicly funded systems. On most dimensions, compensation and working conditions are better for BOE teachers (e.g., salary, length of work year and work day, paid planning time, and retirement benefits).

Insert Table 1 about here

Given differences in rewards among the systems, we expected differences among their teachers. However, simply determining a difference among the workforces is not sufficient cause for arguing the need to change public policies. From a public policy perspective, we believe policy change is only warranted if it can be shown that (a) staffing difficulties within a system (or systems) create problems directly related to program quality, such as

inadequate training or excessive instability; (b) certain systems cannot attract a sufficient number of minimally qualified teachers to meet licensing standards, thereby inhibiting the supply of programs for children; or (c) the nature of current policy raises serious questions of equity.

Level of Training and Credentials

We collected three measures of the training held by teachers: level of certification, degrees held, and credits in early childhood education/child development.

New York City is unique in that the licensing standards for early childhood programs outside the schools set the same standard for teacher credentials as do the public schools. However, as is common elsewhere, New York City's systems are allowed to hire persons who do not possess the education and experience required for conventional certification. This is an accommodation meant to address short-term shortages in the supply of fully certified individuals. Our term for the status of teachers holding these interim credentials--since they must make progress toward conventional certification as a condition of hire and employment--is precertification.

Prior to July 1984, these forms of precertification were fairly equivalent between the BOE and the ACD programs. In September 1983, the New York City public schools shifted from double-session, half-day kindergartens to a full-day program. This expanded the need for kindergarten teachers, and many were hired from the ACD system. To alleviate this shortage, an ad hoc "option plan" was negotiated between ACD and the agency with licensing authority, the New York City Department of

Health. Through this option plan, less restrictive categories of precertification were added requiring less training and experience.

We found that public school teachers were much more likely to be fully certified than teachers in publicly funded Day Care or Head Start. More than nine in ten public school teachers were fully certified, versus about five in ten in Head Start and Day Care. Table 2 contains the information on teacher certification status by system.

Insert Table 2 about here

Most of these precertified Head Start and Day Care teachers held Option 1 credentials. Option 1 credentials indicate that these teachers are within 30 credits of a baccalaureate degree and plan to finish that degree and become certified. Approximately one in four precertified Head Start and Day Care teachers were Option 2 teachers. Option 2 teachers are further away from the baccalaureate (needing up to 60 credits) but also have a study plan indicating that they will finish both the degree and other requirements for full certification. Option 3 teachers need no higher education credits or experience. They can be hired as a last resort for a period of not more than six months. Fortunately, only one teacher in seventy-five met Option 3.

We investigated the degree status of these precertified teachers, since degree status indicates how far these teachers need to go to achieve full certification. All the precertified teachers in the public schools had baccalaureate degrees. In Head Start, 28.2% of the precertified group were prebaccalaureate (12.4% of the total group of Head Start teachers). In Day Care, 31% of the precertified teachers were prebaccalaureate (13.4% of all Day Care teachers).

While there are clear differences in the percentages of fully certified teachers in the public schools, Head Start, and publicly funded Day Care, it is not appropriate to make too much of this difference. Certification is only one indicator of preparation, since research has shown that job-relevant training is more related to child outcomes than degree status alone. Accordingly, we considered certification in the context of relevant coursework and degrees held. Table 3 contains the data on highest degree held and credits in early childhood education/child development.

Insert Table 3 about here

Seventy-five percent of the Board of Education teachers had advanced degrees, more than twice the rate found in Head Start and Day

Care. But they had fewer early childhood credits than teachers in the ACD systems. Neither result is surprising. The Board of Education salary schedule substantially rewards teachers for attaining advanced degrees, while this is much less true in Head Start and Day Care (see Table 1). Currently, licensing standards for full certification in Head Start and Day Care require more coursework specific to early childhood than the Board of Education certification standards--hence Head Start and Day Care teachers have more credits.

Given the high proportion of precertified teachers in the Day Care and Head Start systems, we compared the level of training between them and their fully certified colleagues to see if any significant patterns would emerge (see Table 4). While the fully certified group had more advanced degrees, there is no difference on credits in early childhood education/child development.

Insert Table 4 about here

With the level of training of the fully certified teachers as the referent, the precertified teachers seem quite qualified. Yet it would be an inappropriate conclusion (and a misrepresentation of these data) to argue

that full certification is a policy standard that is unnecessarily high. The precertified teachers must take coursework as part of their study plans to maintain their precertification status. They also get a raise of approximately $2,000 when they earn full certification. Both of these factors are likely causes of the amount of early childhood coursework in the precertified group and the willingness of the group to continue teaching. It is unreasonable to assume that the precertified group would appear as competent as it does if the progress toward certification did not continue to be required--and rewarded to some extent.

Viewed together, the various differences in training alone do not imply a need for policy change. While coursework in early childhood education has been empirically related to positive child outcomes, the relationship is not linear. "More is better" may hold for a certain accumulation of credits, but it is not plausible that 40 credits on average is much better than 30 credits--these being the approximate differences between the Day Care and Head Start teachers and those in the Board of Education. By any standard, teachers with an average of 30 credits in early childhood education have considerable training in the field.

The relative differences in early childhood training and degrees held between the fully certified and precertified staff in Head Start and Day Care are likewise not troubling. While there is a difference between these groups on highest degree held, there is not a difference on credits in early childhood education.

Workforce Stability

We measured workforce stability in three ways -- experience in the teaching field, movement within the field, and likelihood of making a job or career change in the next two years. We then considered these data in conjunction with current vacancy rates within these programs.

Experience in the teaching field. Table 5 presents information on teacher experience in the field. Although some differences exist, all the groups were highly experienced. Teachers in the Board of Education averaged close to 15 years of experience teaching young children, followed by 12 years for those in publicly funded Day Care and 8 years within Head Start. This pattern holds for the average number of years teachers have been in their current site, with experience teaching young children highly related to total teaching experience.

Insert Table 5 about here

We also analyzed the Day Care and Head Start teachers' experience by level of certification. Fully certified staff were more experienced, but the difference does not imply a need for a change in policies. The least

experienced group--precertified Head Start teachers--still had an average of nearly seven years of experience.

Important for policy purposes are the percentages of teachers with less than one year of teaching experience at their current site. This is the metric used in many salary and wage studies for workforce stability, since teachers in this category are assumed to be filling a position that turned over (researchers exclude teachers in this situation due to program expansion). The percentages of teachers with less than one year in their current site were 8.1% for the Board of Education, 22.7% for Head Start, and 21.5% for Day Care. The magnitude of the difference between the Board of Education and the other systems is startling. We explore the importance of these figures more fully in the section where we link them to information on teacher vacancies.

Teacher movement within the field and likelihood of making a job or career change in the next two years. Table 6 contains information on workforce mobility. Teachers estimated the likelihood of change in the next two years from their current classroom job. This limited period was chosen so that responses would reflect actual plans versus more vaguely felt possibilities. We asked whether teachers were likely to stay in the classroom but shift to a new school or center, shift to a nonclassroom job in the education field, or leave the education profession to go into a new occupation. We also asked all teachers to estimate the number of additional years they would be likely to teach.

Insert Table 6 about here

Head Start teachers rated themselves as significantly more likely to move to a new classroom job than teachers in either the Board of Education or publicly funded Day Care. On average, Head Start teachers rated themselves as likely to make this shift. Board of Education teachers rated themselves as less likely than those in either Head Start or Day Care to move to a nonclassroom job. This difference is only a matter of degree, with no group anticipating a nonclassroom position with great surety. Board of Education teachers were also less likely than Day Care teachers to feel that they would soon be leaving the profession. Again the difference is relative, since all the groups rated themselves as unlikely to leave. Finally, there was no difference among the systems on estimates of additional years of teaching. On average, all of these teachers planned to teach nearly another ten years.

The information on workforce stability is a double-edged sword. Teachers have considerable experience and indicate that they will stay in teaching. However, they also think it is likely they will change positions within the field. From these ratings and our estimate of the percentage of teachers employed less than a year at their current site, this shifting around will be a particularly severe problem for Head Start and Day Care.

Vacancy Rates. The design of this study limited our ability to assess the match between teacher supply and program demand. But data from another source imply that even the ad hoc lowering of standards did not solve the labor shortage of teachers for publicly funded Day Care and Head Start. Human Resources Administration Commissioner, William J. Grinker (1988), testified that 27% of the teacher positions in Day Care and 13% of the teacher positions in Head Start were vacant in mid-1988. The vacancy rate for teachers in New York City's publicly funded Day Care programs was 21% in 1986 (Early Childhood Education Commission, 1986). This means the rate has increased by 6% in two years.

By definition, a vacant position is an unstable one, since a vacancy is a teaching position not permanently filled by a precertified or certified teacher. When a position is vacant, the children are still attending but the classroom is operating with temporary staff. It is unclear who was teaching in these rooms, but the possibilities are worrisome. The Education Directors--administrative staff in New York City in charge of the classroom component of programs--were undoubtedly teaching in some situations. Although these persons are qualified to teach, it is not reasonable to assume that one person can simultaneously perform two jobs effectively. Qualified substitutes may have been working in other programs, yet anecdotal evidence says they are difficult to find--and even harder to retain long term--creating a revolving cast of adults for groups of children. Finally, and in violation of the New York City Licensing Code, assistant teachers or other unqualified persons were probably filling the role of group teacher.

Vacancy Rates and Teacher Turnover

When such a large percentage of teachers are new to their current sites, program quality is in jeopardy. This conclusion follows from the literature relating child outcomes to teacher turnover, since our rates for Head Start and Day Care imply that one in every four to five teachers is leaving each year. But judging workforce stability on these rates alone leads to a gross underestimation of the problem.

The rates of newly hired staff indicate positions that turned over but then stabilized. On the other hand, vacant positions had not yet stabilized and may represent instances where classes were being taught by a series of adults. It is clear that when the vacancy rates are considered along with our estimates of positions recently filled, jeopardy becomes too weak a word to describe a bad situation.

For example, when these data were collected, there were 1,325 early childhood group teacher positions in publicly funded Day Care in New York City. Commissioner Grinker's figures indicate that during the 1987-88 program year, 358 of these were vacant at one time. Our estimates imply that of the 967 positions that were filled, 21.5% or an additional 207 positions had turned over during the year and had then been filled. Vacancy and turnover rates taken together suggest that 565 positions (358 + 207) were unstable during the year. This represents 42.6% of all Day Care positions. Using the same logic for Head Start, as many as 33% of Head Start positions may have been unstable. Because our data were collected about six months earlier than Grinker's vacancy calculations, the vacancy and

turnover estimates are not independent. For example, a position we found to be filled by a newly hired individual may have been vacant when the vacancy rates were calculated, leading to some level of double counting. This means the actual number of unstable positions in Day Care was between 358 and 565 of its 1,325 positions. In Head Start the range was between 83 and 121 of Head Start's 366 positions. In each case, the lower number implies jeopardized quality. The higher number implies a crisis.

National estimates of annual public school teacher turnover are typically 6% to 8%, while turnover rates in day care are often found to be around 40% (U.S. Department of Labor, 1986; Zinsser, 1986). The estimate of turnover found in this study for the Board of Education is very close to the national estimate, as are our estimates for Day Care and Head Start when we combine vacancy and turnover information. It makes sense to do this, both for methodological and policy reasons. As Kontos and Stemmel (1988) have noted, estimates of the stability of the early childhood workforce vary study by study. One factor is probably differing methodologies. Most of the aforementioned salary and wage studies gathered data by polling program administrators. In some studies (e.g., BANANAS Resource and Referral/Child Care Employee Project, 1986; Zinsser, 1986) the administrators were asked the total number of teaching positions and the number of teachers who had left during the previous year. This approach to calculating turnover, which focuses on the precipitating event of a person leaving, results in the capture of both positions which are currently vacant and those which have been filled. Other studies (e.g., Leavitt, 1986;

Modigliani et al., 1987; Nelson, 1986) report turnover as the percentage of teachers with less than one year of experience in their current position. Such an approach does not capture vacancies if the persons filling those positions on an ad hoc basis do not consider themselves teachers for research purposes. As one would expect, the estimates of workforce stability using the first approach are uniformly more alarming. Such is the case in the current study.

Beyond seeking methodological consistency, focusing on the precipitating event of the teacher leaving makes good policy sense. At issue when considering program quality are the problems created by teachers leaving, not the stability created by someone being hired into a vacant position.

While our results do not conclusively demonstrate that the movement within this workforce is from the ACD programs to the public schools, circumstantial evidence supports this view. To further examine the impact of disparities in rewards among these systems on workforce movement, we calculated the current average salaries for fully certified teachers, since they have the clear option to move among systems.[1] The average salary for fully certified teachers in the Board of Education was $33,303, while average salaries for fully certified teachers in Day Care were $19,365 and $19,108 in Head Start. Only a small amount of the discrepancy between the Board of Education salaries and those in the other systems was due to differences in the amount of training and experience in those workforces. The main difference results from differences in the salary schedules. We estimated

that the average salaries for fully certified teachers in Day Care and Head Start, if they were paid on the public school salary schedule, would be $31,112 and $27,422 respectively. It is likely that teachers are both aware of and influenced by this discrepancy, particularly because the cost of living in New York City is among the highest in the nation.

Further, we examined the work history of teachers in the public schools to see how many had had previous experience in either the Day Care or Head Start system. Given the disparities that exist, it did not surprise us that approximately 25% of the public school teachers had such experience.

In summary, we believe that many Day Care and Head Start teachers leave their systems to move into the public schools. This reasoning is consistent with the teacher ratings of likelihood of change. These data do not illustrate a highly disaffected workforce that plans to leave the profession. Rather, they imply a very stable group in the Board of Education and less stable groups of Head Start and precertified Day Care staff who are likely to leave one classroom position for another with higher compensation. In an important sense, this appears to be a problem within the field in New York City that is easier to confront than a wholesale exodus from the profession.

Policy Implications

New York City offered an unusual opportunity to observe the effects of variation in compensation and working conditions while controlling for staff qualifications. Our purpose in investigating workforce stability and level of training was to determine if there were differences among the

teachers in New York City's early childhood programs which were predicted by disparities in the reward systems and therefore implied the need for changes in public policies. There are such differences.

The obvious concern in this situation is the instability of the teachers in Day Care and Head Start related to inequities in the reward systems among New York City's early childhood programs. As many as 42% of the teacher positions in Day Care are unstable, as are 33% of the positions in Head Start. This contrasts with a mere 8% of the positions in the public schools. Our salary calculations predict these rates. The average salary for fully certified teachers in the Board of Education was $33,033, while the average teacher salary for fully certified Day Care teachers was $19,368, and $19,108 for Head Start teachers. As was noted, the main disparities in these average salaries results from disparities in the salary schedules, not differences in the amount of training and experience in these workforces.

From a public policy perspective, the fact that the high teacher turnover and vacancy rates exist in the Head Start and publicly funded Day Care systems is especially troubling. These are systems expressly designed to serve the city's poorer children and families. The major policy rationales for public support of these programs are their ability to permit low-income parents to work and the ability of high-quality versions of these programs to erode the well-documented relationship between family income and school failure. If the public's interests are to be served, it is precisely these programs which should be the most adequately staffed.

At this time, New York City's non-public school early childhood programs cannot attract sufficient numbers of teachers to fill vacancies in a timely manner. The information on workforce stability precludes the belief that the programs are sufficiently stable for young children. The inescapable conclusion is that something must change in order to assure program quality. Ignoring the teacher vacancy and turnover rates in these programs will have the consequence of consigning the city's poorest children to programs of tenuous quality.

From what these teachers say about their future plans, it appears that public policy in New York should focus on the disparities in compensation and working conditions among the early childhood systems, rather than between early childhood positions and positions outside the field. This makes it easier to characterize the problem and solutions, since we are dealing with a finite number of systems and disparities.

Such a strategy may not be applicable to other localities where the certification requirements vary between the schools and programs outside. In such situations, competition probably comes more substantively from other service-sector jobs. Because salaries in publicly supported day care and Head Start are lower elsewhere, the employment is more marginal. In these situations, turnover may result more frequently from people leaving the workforce either permanently or temporarily, perhaps seeking further training which leads to employment that is more financially rewarding, since the economic pull of a marginal job is minimal. More information is needed

about the dynamics of this workforce in these situations, since different conditions lead to different policy reponses.

However, we offer a prediction about the future of salaries and working conditions in non-public school programs which suggests that disparities between the schools and other programs will soon become a common concern. Public schools will continue to expand their early childhood offerings. As Mitchell (1988) has argued, this will be due to a desire to prevent school failure and as a response to the child care needs of America's families. Most of this expansion will be in the form of part-day programs serving four-year-olds, allowing full-day services and services to younger children to remain the province of non-public school programs. These public school programs will be a powerful magnet for personnel interested in working with young children. Since this factor will combine with the increased need for full-day services due to increased labor force participation by mothers, the problem of teacher supply for non-public school programs will worsen. This situation, coupled with a growing constituency of advocates and parents concerned about program quality due to turnover of qualified teachers, will inevitably create pressure to raise salaries. These two factors, low supply and salary pressure, will have the incidental effect of supporting a rise in standards for teachers in non-public school programs. It may seem counter-intuitive that concerns about supply and salaries will cause standards to rise. But this is the paradox described by Wise (1988). Wise shows how concerns about the quality and supply of public school teachers has led, for the last century, to simultaneous increases in both salaries and

standards. Wise's assumption is that this occurs because the public demands higher standards as a rationale and reward for public subsidy of salary increases, and we see no reason why the same dynamic will not occur in publicly funded programs outside the schools. This means that the situation we have explored in New York City is a harbinger of the future.

Assuming that this scenario is accurate, policy makers concerned with improvement of early childhood programs will need to consciously attend to the interplay between public school and non-public school systems. Schools should continue to be improved in order to make public school teaching a more desirable occupational choice. But as policy change occurs to improve the recruitment and retention of qualified public school teachers, it must be recognized that these improvements will exacerbate crises that already exist in other publicly funded educational programs. Fortunately, self-interest should drive policy in an appropriate direction for all teachers and children, since these non-public school programs are serving the children and families which the schools will soon receive.

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Footnotes

[1]This was done by approximating a teacher's position on existing salary schedules using survey information on number of years of teaching experience (overall and within a current system), educational background, and level of certification. In addition, a BOE equivalent salary was estimated for all fully certified respondents from Day Care and Head Start. This was done by creating a salary for each Day Care and Head Start teacher on the BOE salary scale, using the ACD teacher's experience and level of education.

Table 1

Wages Benefits And Working Conditions Of New York City Teachers
In Publicly Funded Early Childhood Programs, 1986-1987[a]

	Board of Education	Day Care	Head Start
Wages			
Entry Level	$20,000 (effective 9/9/86)	$18,500 [c] (effective 7/1/86)	$18,500 [c] (effective 9/9/86)
Longevity Pay	10 yrs $1,955 [b] 13 yrs $2,959 (cum) [b] 15 yrs $5,081 (cum) [b]	5 yrs $200 10 yrs $400 (cum) 15 yrs $600 (cum) (effective 7/1/86)	5 yrs $200 10 yrs $400 (cum) (effective 2/1/87)
Educational Differential	BA + 30 $782 MA $2,893 (cum) MA + 30 $5,785 (cum)	Student teaching $401 MA education $403 Both $804	MA education $900
Hourly Wage (illustrative example using average salary)	$27.99/hour	$11.74/hour	$11.81/hour
Annual salary with MA Degree and Ten Years Experience (illustrative example)	$34,682	$19,301	$19,800

Table 1 cont'd

	Board of Education	Day care	Head Start
<u>Benefits</u>			
Health Insurance	11 options. Plans fully subsidized include HIP/HMO or GHI-C/Blue Cross	Choice of HIP/HMO or GHI-C/Blue Cross (subsidized)	Blue Cross/ Blue Shield (subsidized)
Pension	Yes [b]	Yes [c]	None
<u>Work days</u>			
Student Days	186	250	218
Vacation	Summer	30 days	20 days; 23 after 7 yrs (if hired past 2/1/80); 23 days if 5 yrs service by 2/1/80; 23 days after 5 yrs service if hired by 2/1/80.
Holidays	25 days	11 days	11 days
Days of Work	188	220	227 - 230
Length of Work Day	6 hours 20 minutes	7 hours 30 minutes	7 hours

Table 1 cont'd

	Board of Education	Day Care	Head Start
Working Conditions			
Class Size	16 - 20 in pre-kindergarten programs with an assistant teacher. Kindergarten up to 25.	Up to 12 four-year-olds; or up to 20 children with an assistant teacher.	Up to 12 four-year-olds; or up to 20 children with an assistant teacher.
Paid Preparation Period	Two forty-minute periods per week	None	None
Paid Release Time From Instruction of Children	One period per week; for administrative responsibilities	15 min./day	None
Choice in Teaching Assignments	Priority based upon seniority among qualified applicants who apply	Not covered by contract	Not covered by contract

a All information is based upon the contracts governing teacher employment in these systems during 1986-1987. The data in this report were collected during late spring, 1987.

b Regularly appointed teachers only (not substitutes).

c Fully certified teachers only (not precertified teachers).

Table 2

Teacher Certification Status by System

Certification Status	Board of Education (N=336)	ACD Head Start (N=89)	ACD Day Care (N=134)
Fully Certified	317 (94.3%)	50 (56.2%)	76 (56.7%)
Precertified [a]	19 (5.7%)	39 (43.8%)	58 (43.3%)

[a] This report uses the term "precertified" to refer to the status of individuals who do not possess the education and experience required for full certification but do hold interim credentials which include a plan for making progress towards certification.

Table 3

Comparison of Teachers by System on Selected Measures of Training

Educational Experience	Board of Education (N=336)	ACD Head Start (N=89)	ACD Day Care (N=134)	Significant Differences
Highest Degree Held				BOE > HS, DC
% less than BA	–	12.3	13.4	
% BA +	25	61.9	50.8	
% MA +	75	25.8	35.8	
Credits in Early childhood Education				DC, HS > BOE
Mean	31.51	41.98	42.72	
(SD)	(23.19)	(26.83)	30.46)	

Note. The analysis procedure was one-way ANOVA for the variable "credits in early childhood education". An overall finding of significance was further analyzed using post-hoc Scheffe procedures. The analysis procedure for "highest degree held" was Chi-square. All tests of significance were conducted with $p < .01$.

Table 4

Comparison of the Fully Certified and Precertified Teachers Within ACD Head Start and Day Care on Selected Measures of Training

	ACD-Day Care		ACD-Head Start		Significant Differences		
Educational Experience	Full Certification (N=76)	Pre-Certification (N=58)	Full Certification (N=50)	Pre-Certification (N=39)	Certification	Program	2-way interaction
Highest Degree Held					Yes	No	N/A
% Less than BA	–	31	–	28.2			
% BA +	44.6	58.6	60	64.1			
% MA +	55.4	10.4	40	7.7			
Credits in Early Childhood Education					No	No	No
Mean	46.4	38.5	45.9	37.9			
(standard deviation)	(32.06)	(28.22)	(28.92)	(24.14)			

Note. The analysis procedure was two-way ANOVA for the variable "credits in early childhood education" with the factors being Certification (full versus precertification) and Program (Day Care versus Head Start). The analysis procedure for "highest degree held" was Chi-square. All tests of significance were conducted with $p < .05$.

Table 5

Comparison of Teachers by System on Selected Measures of Stability

Teaching Experience	Board of Education (N=336)	ACD Head Start (N=89)	ACD Day Care (N=134)	Significant Differences
Total Years Taught				BOE > DC > HS
Mean	14.88	7.89	11.64	
(standard deviation)	(8.11)	(7.09)	(8.54)	
% less than one year	1.5	8.2	3.1	
Years at Current Site				BOE > DC > HS
Mean	9.02	4.43	6.8	
(standard deviation)	(8.9)	(4.42)	(6.3)	
% less than one year	8.1	22.7	21.5	
Years in Current System				BOE > DC > HS
Mean	13.4	5.36	8.25	
(standard deviation)	(11.3)	(5.19)	(6.46)	
% less than one year	5.1	18.2	12.3	

Note. Procedures were one-way ANOVA for each variable. Overall findings of significance were further analyzed using post-hoc Scheffe procedures. All tests of significance were conducted with $p < .01$.

Table 6

Comparison of Teachers by System on Likelihood of Change

Likelihood of Job Change	Board of Education (N=336)	ACD Head Start (N=89)	ACD Day Care (N=134)	Significant Differences
Likelihood of new classroom job at different center in next two years:				HS > DC, BOE
Mean	2.33 [a]	3.17	2.63	
(standard deviation)	(1.15)	(1.06)	(1.24)	
Likelihood of shifting to non-classroom job in education in next two years:				DC, HS > BOE
Mean	1.79 [a]	2.41	2.51	
(standard deviation)	(0.93)	(1.10)	(1.14)	
Likelihood of leaving profession in next two years to go to a new occupation:				DC, HS > BOE
Mean	1.65 [a]	1.96	2.12	
(standard deviation)	(0.94)	(1.05)	(1.07)	
Estimate of additional years of teaching:				No
Mean	9.34	9.89	9.22	
(standard deviation)	(6.73)	(8.86)	(7.42)	

Note. The analysis procedure was one-way ANOVA for each variable. Overall findings of significance were further analyzed using post-hoc Scheffe procedures. All tests of significance were conducted with $p < .01$.

[a] Variables could take on values ranging from 1-4 (1 = very unlikely; 2 = unlikely; 3 = likely; 4 = very likely). Therefore, higher values indicate a greater likelihood of change.